Small Business Economic Impact Statement

Chapter 246-290 WAC
Group A Public Water Supplies
July 2016

SECTON 1:

Describe the proposed rule, including: a brief history of the issue; an explanation of why the proposed rule is needed; and a brief description of the probable compliance requirements and the kinds of professional services that a small business is likely to need in order to comply with the proposed rule.

The department conducted a review of chapter 246-290 WAC, Group A public water supplies (Group A rule). After analyzing feedback from both staff and stakeholders, the department identified water system planning, emergency sources and supplies, and disinfection as three parts of the Group A rule that could be improved In addition, the EPA adopted the Revised Total Coliform Rule (RTCR), which must be adopted by the State Board of Health (Board) to maintain primacy. The board is proposing to revise the Group A rules to improve public health protection, streamline regulations, provide clarity, and improve consistency between state and federal regulations by:

- Adopting EPA's RTCR into state rules;
- Amending requirements for water system planning to provide greater flexibility;
- Adding a new rule section on emergency sources and supplies to set requirements for systems that have an emergency source and converts long-standing guidance concerning supplies (trucked water) into rule; and
- Amending requirements for disinfection to strengthen public health protection.

In addition to these changes, the Board is proposing technical corrections and clarifications to existing requirements throughout the chapter to make the rule easier to understand and use.

<u>Rule Revision Background</u>

Revised Total Coliform Rule (RTCR)
As part of the primacy agreement, states must adopt and administer rules that are no less stringent than the federal rules. In order to maintain our primacy agreement, the RTCR must be adopted into state rules. The RTCR provides greater public health protection by improving the original Total Coliform Rule of 1989. The RTCR requires systems that are vulnerable to microbial contamination to identify and fix problems, makes adjustments to existing monitoring requirements based on system type and size and compliance history, sets new requirements for seasonal systems, and strengthens public notice requirements when systems incur violations such as failing to conduct an assessment or fix identified problems.

Water System Planning
Some systems must submit water system plan updates to the department every six years. For many of these water systems, the public health benefit may not justify the cost of the requirements. In order to streamline regulations, provide clarity, improve consistency, and reduce costs for stakeholders without jeopardizing public health, the proposal:

- Revises the timeframe for water system plan updates from six years to ten years with the option to choose a shorter timeframe.
- Revises the planning elements and forecasting requirements to align with the new timeframe for water system plan approvals.
- Revises the triggers for expanding systems to submit a water system plan.

- Removes requirements that prevent extending service beyond the retail service area without redefining the retail service area in a plan amendment, and broadens local government consistency determination requirements.
- Clarifies conditions and options for water system plan amendments.
- Simplifies service area definitions.

Emergency Sources and Supplies
To improve public health protection, the proposal sets requirements for systems that have an emergency source of supply, and converts long-standing guidance for the use of trucked water into rule.

- Requires systems with an emergency source to include information in its emergency response program such as engineering design, a monitoring schedule, emergency activation, and operational procedures.
- Sets conditions under which an emergency source can be physically connected to the distribution system when not in service, and if conditions are not met, requires systems to physically disconnect the emergency source when not in use.
- Requires systems to receive permission prior to using trucked water during an emergency event, and sets disinfection, storage, and recordkeeping requirements.

Disinfection
The Group A rule includes varying disinfection methods and requirements that were adopted to meet the needs of water systems with specific water quality issues, and other requirements were adopted to align with federal rules. The department identified areas that could be improved, including:

- Revisions to the triggers for continuous disinfection.
- Revisions to monitoring and reporting requirements to provide flexibility.
- New requirements for systems that desalinate seawater using reverse osmosis.
- Clarifies criteria for treatment techniques and reporting violations.

In analyzing the potential impact of the proposed rule on investor owned water utilities (IOWU), there are several requirements that may apply to IOWU, depending on their specific circumstances. For example, some IOWUs may have to contract with professional engineer to design a disinfection unit as a result of the changes in the proposed rule. These "applicable" costs are addressed in Section 3 of this document.

SECTION 2:

Identify which businesses are required to comply with the proposed rule using the North American Industry Classification System (NAICS) codes and what the minor cost thresholds are.

Table A:

NAICS Code (4, 5 or 6 digit)	NAICS Business Description	# of businesses in WA	Minor Cost Threshold = 1% of Average Annual Payroll	Minor Cost Threshold = .3% of Average Annual Receipts
221310	Water Supply and Irrigation Systems	141	$1418	Not Available

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SECTION 3:

Analyze the probable cost of compliance. Identify the probable costs to comply with the proposed rule, including: cost of equipment, supplies, labor, professional services and increased administrative costs; and whether compliance with the proposed rule will cause businesses to lose sales or revenue.

The following sections create "situational" requirements, that is, depending on the circumstances for an individual IOWU, they may have to complete required tasks and function. If an IOWU does not to take action to satisfy a proposed regulatory requirement, cost estimates are provided below.

Section 246-290-131 Emergency Sources and Supplies

This section establishes requirement for water systems that want to maintain an emergency source that is either physically connected or not physically connected to their system. It is unknown how many IOWU will elect to have an emergency source. If an IOWU elects to physically disconnect their emergency source, they must document in their emergency response program: 1) that the source is approved; 2) that the source has satisfactory water quality; 3) that they have procedures/operational steps when activating source; and 4) how they will inform the department and their customers when they use the source. The department's assumption is that systems that elect to maintain an emergency source or an emergency supply (trucked water option) will incur nominal costs to create required documentation. Based on input received from stakeholders, the department assumes systems will spend one to two days of additional staff time (system operator time, $30.59 hourly wage[1]) to arrange, collect and document required information to include in the required content of the emergency response program.

If an IOWU elects to maintain an emergency source that is physically connected to the distribution system, they must have an isolation valve and would have to lock-out and tag out the well pump motor starter. System specific details (size of pipe, length, location, access, etc.) will impact the cost of maintaining a physically connected emergency source. For illustrative purposes, if a system had to purchase and install a 4" isolation gate valve and lockout and tag the

[1] Bureau of Labor Statistics, Annual Mean Wage of Water and Wastewater Treatment Plant and Water System Operators by State, May 2015. http://www.bls.gov/oes/current/oes518031.htm

pump motor above ground, it could cost from $1500 to $2500[2]. There is a similar requirement for IOWUs that elect to maintain an emergency source that is physically disconnected from their distribution system to put in safeguards. For these IOWUs, the department assumes the most affordable way is to cut the well discharge pipe in two places, install a pipe flange on both ends of the removed pipe piece and on the pipe that was cut (four flanges total) (cost range of $2,000 and $3,000 per source). If the discharge pipe already has flanged sections, then the cost to remove a flanged section of pipe is only the labor and equipment cost, which will be less than creating a flanged section of pipe. Thus, the estimated costs of complying with the proposed requirements is dependent on how the IOWU connects their emergency source and could cost between $1,000 and $3,000 for one emergency source.

If an IOWU elects to truck water to address an emergency, the propose rules establishes requirements for this function. IOWU will incur costs for the required functions and generally all of these have nominal costs (typically taking a few hours of staff time). The department contacted several firms that offer trucking services for water. These firms charge clients different ways, including flat daily rates, hourly rates, hourly rates with designated maximum travel distances, and typical "time and materials" contracts (e.g., hourly rate or mileage rate plus cost of water). Given each case is unique; it is not possible to identify a cost for this service and therefore is indeterminate.

Section 246-290-451, Disinfection of drinking waters

It is unknown how many IOWU will have to install disinfection because of this proposed rule. IOWU required to disinfect because of the proposed changes will incur costs for the treatment design and review, the disinfection equipment, and ongoing costs for chemicals, operation, maintenance, testing equipment, and staff time. The department assumes that most IOWU that will have to disinfect because of the proposed changes will install "simple disinfection", which entails installing a chlorine tank, connecting pipes and measuring equipment. The department's professional engineers identified estimated costs of disinfection and shared our assumptions with several consulting professionals. The consulting professionals, in turn, provided the department with their cost estimates, which in some cases includes cost ranges (low and high cost estimates). Table 1 identifies cost estimates for simple disinfection with a capacity that ranges from 10,000 gallons per day (gpd) up to 500,000 gpd. The costs provided have large ranges, with one explanation of the differences in system capacities and are for illustrative purposes only. The actual cost of installing disinfection ultimately depends on the specific water system design, physical layout, and water quality characteristics.

[2] 4" Flanged gate valve costs approximately $1200, lock out devices and tags range from $40-$120 with labor the total cost range between $1500 and $2000. Source Grainger.com Class 300 300# Flanged Gate Valve, Inlet to Outlet Length: 12", Pipe Size: 4", Max. Fluid Temp.: 800

Table 1 Simple disinfection

Disinfection components for simple disinfection using chlorine	Costs Estimates for a system with a capacity of 10,000 to 500,000 gpd		
	Low	High	Average
Engineering design	$1,000	$12,000	$4111
Equipment (chlorine pump, solution tank, injection nozzle, etc.)	$1,000	$2,500	$1644
Flow Control if needed (controller, pulse meter)	$1000	$3,000	$2556
Instrumentation (unit measuring chlorine levels)	$75	$500	$350
Department project review costs for simple disinfection	$205	$994	$874[3]
Labor and Industries (L&I) Permit	$150	$400	$372
Installing disinfection unit including piping equipment setup and testing	$1000	$9000	$3772
Total Estimated Cost of Unit (One Time Costs)	$7794	$28194	$13629

Operation and Maintenance- taking daily reading of chlorination levels and completing monthly reports (annual costs)	$100	$6000	$1672
Operation and maintenance- Completing (semi-annual) equipment maintenance	$200	$200	$200
Annual cost of chlorine (for a 500,000 gpd unit)	$200	$3000	$1889
Total Annualized Operation and Maintenance	$840	$9400	$3916

The existing regulation requires free chlorine residual measurement by an EPA-approved method and disallows the use of test strips for chlorine residual measurements. The department does not know how many IOWUs are currently using a color wheel to measure free chlorine residual for CT6 compliance (Hach color wheels cost $52-89[4]). The proposed rules also allow IOWUs to use a digital colorimeter, which is a common device that is an EPA-approved method, to measure chlorine residual that costs approximately $415[5].

As described in this analysis, there are selected sections that could result in increased costs for select water systems (e.g., disinfection section, and the emergency source and supply section). Although select IOWU may incur these costs, the proposed rule enhances public health protection by requiring disinfection for sources vulnerable to contamination, requiring accurate measuring devices, and requiring safeguards for water systems that elect to truck water to address an emergency source). Furthermore, the rule making also makes changes that will result in cost savings to water systems (e.g., water system planning section).

[3] Per Fee WAC 246-290-990
[4] Internet search of cost color wheels http://www.hach.com/free-chlorine-color-disc-test-kit-model-cn-66f/product
[5] Internet search of cost of pocket colorimeter http://www.hach.com/pocket-colorimeter-ii-chlorine-free-and-total/product

The department's assumption is that collectively some IOWU may incur costs due to the proposed rule but the rule will not result in IOWU losing sales or revenue.

SECTION 4:

Analyze whether the proposed rule may impose more than minor costs on businesses in the industry.

Based on the preceding analysis of potential costs of the proposed rule, the department is unable to determine whether the rule will result in costs that impose more than minor cost on IOWUs. Because of this uncertainty, the department is taking the conservative position that they rule may impose more than minor costs and thus are completing this analysis.

SECTION 5:

Determine whether the proposed rule may have a disproportionate impact on small businesses as compared to the 10 percent of businesses that are the largest businesses required to comply with the proposed rule.

Given the uncertainty of costs and size of IOWU that may incur compliance costs associated with the proposed rule, the department is assuming that the rule may have a disproportionate cost on small businesses.

SECTION 6:

If the proposed rule has a disproportionate impact on small businesses, identify the steps taken to reduce the costs of the rule on small businesses. If the costs can not be reduced provide a clear explanation of why.

The department considered the mitigation methods identified in RCW 19.85.030. The department was not able to lower the cost of the proposed rule for small business. The rule could have costs for IOWU given their situation. The department was not able to reduce, modify, or eliminate substantive regulatory requirements; simplify, reduce, or eliminate record keeping and reporting requirements; delay compliance timetables; or create or implement any other mitigation techniques. Adopting these mitigation techniques was not possible because they would have undermined the intent of the rule, which is to establish regulatory requirements to protect the health of consumers using public drinking water supplies.

SECTION 7:

Describe how small businesses were involved in the development of the proposed rule.

The department completes rulemaking in a transparent collaborate process. The department maintains a list of interested parties, which includes IOWUs. The department has shared draft versions of the proposed rule with stakeholders, including IOWU, and provided them an opportunity to provide input, comments, and suggested changes to the draft rules during the rulemaking process.

SECTION 8:

Identify the estimated number of jobs that will be created or lost as the result of compliance with the proposed rule.

Based on the Legislative Significant Analysis created for the proposed rule, the department's assumption is that IOWU will not have to create (add) or remove (fire) employees because of the proposed rule.